

REMARKS

Summary of the Office Action

Claims 1-4, 7, 9-11, 25-27 and 29-30 are considered in the Office action.

Claims 29, 30, 9 and 27 have been rejected under 35 U.S.C. § 103(a) as anticipated by Saruta et al. U.S. Patent No. 6,533,383 ("Saruta") in view of Inose U.S. Patent No. 6,385,407 ("Inose").

Claim 1 has been rejected under 35 U.S.C. § 103(a) as obvious over Saruta, Inose and Seino et al. U.S. Patent No. 6,361,138 ("Seino").

Claims 3, 10, 11, 25 and 26 have been rejected under 35 U.S.C. § 103(a) as obvious over Saruta, Inose and Haines et al. U.S. Patent No. 6,808,255 ("Haines").

Claim 4 has been rejected under 35 U.S.C. § 103(a) as obvious over Saruta, Inose and Trafton et al. U.S. Patent Publication No. 2003/0043243 ("Trafton").

Claim 7 has been rejected under 35 U.S.C. § 103(a) as obvious over Saruta, Inose and Yoshimura et al. U.S. Patent No. 6,019,461 ("Yoshimura").

Reply

Applicants have amended claims 29 and 30 to more particularly recite and distinctly claim the invention. Amended claim 29 recites a printing system that includes a plurality of ink containers, each ink container adapted to be installed in the printing system and including an ink and an associated tag, each tag including rewritable data that identifies the manufacturing date of the associated ink, and a controller adapted to allow a user to instruct a reader/writer to write the manufacturing date of the associated ink to an identified tag while an ink container is installed in the printing system.

Amended claim 30 recites a similar method claim. Support for the claim amendments may be found at least at page 7, lines 2-3, page 7, lines 28-29, page 8, lines 1-8, page 9, lines 2-3, page 10, lines 6-8, and FIGS. 3-4 (illustrating primary ink containers 28-i installed in printing system 10, and reader/writers 52-i and tags 54-i associated with each of the primary containers 28-i, indicating that reader/writers 52-i read or write to tags 54-i while primary containers 28-i are installed in printing system 10, and stating that tags 54-i may be programmed with information using reader/writers 52-i)

None of the cited references, alone or combined, describe or suggest the claimed invention. As previously discussed, Saruta describes printing systems that

include means for writing data in memory devices associated with ink cartridges, but does not disclose that the writing means may be used to write ink manufacturing dates to identified tags. Indeed, as previously stated, Saruta points away from the claimed invention by expressly stating that control means 46 and CPU 131 can write numerous data to memory devices 27, 32 and 113, none of which include manufacturing date data. As previously stated, this omission is not surprising, because prior art printing devices typically do not permit manufacturing date data to be modified once the cartridge leaves the manufacturer.

Inose also does not describe the claimed invention. Inose describes a management system for assuring appropriate use of expendable products, such as ink used in printers. (Col. 1, lines 5-14). In particular, a reader/writer 200 may be used to read and write data to a memory 30 coupled to an ink container 100 that may be used in a printer 400. (Col. 3, lines 58-63; Col. 4, lines 59-62; Col. 5, lines 31-34; Col. 6, lines 21-23). Memory 20 may include data regarding the manufacturing date of ink included in container 100. (Col. 6, lines 28-40).

A management system 700 is used to ensure appropriate use of ink in container 100 and to limit access to data in memory 30. (Col. 7, lines 33-60). In particular, management system 700 permits authenticated write-access to memory 30 using an external terminal device 300, while restricting a user's ability to otherwise write data to memory 30. (Col. 9, lines 33-36; Col. 10, lines 10-25; Col. 10, lines 34-45; Col. 12, lines 19-27; Col. 12, lines 56-65). Significantly, Inose only describes authorized write access to memory 30 by a manufacturer ("manufacturer A") using external terminal device 300 when container 100 has been removed from printer 400. (Col. 9, lines 33-45; Col. 9, lines 54-58; Col. 10, lines 5-18; Col. 12, lines 4-11; Col. 12, lines 21-28; Col. 12, lines 56-65). Inose nowhere describes or suggests that a user may be allowed to write the manufacturing date to memory 30 while ink container 100 is installed in printer 400.

Although Inose suggests that a user may somehow rewrite the content of memory 30, Inose clearly indicates that such use is not an authorized use. (Col. 10, lines 37-45). More specifically, Inose clearly suggests that a user would not be allowed to alter the ink manufacturing date stored in memory 30. In particular, Inose states that ink in container 100 that has not been used for a long after the manufacturing date may

solidify and may cause printer 400 to fail or malfunction. (Col. 11, lines 58-62). To prevent such damage, a controller in printer 400 checks to make sure that the ink in container 100 is not too old. (Col. 11, line 62 through Col. 12, line 3). Clearly, such a preventative step would be ineffective if a user were allowed to alter the ink manufacturing date stored in memory 30.

Thus, unlike the claimed invention, Inose does not describe or suggest a printing system that allows a user to write the manufacturing date of an ink to tag while an ink container is installed in a printing system. Instead, Inose clearly teaches away from such a system.

Further, the combination of Saruta and Inose would not produce the claimed invention. The combination seemingly would consist of a printer that includes a means for writing various data to a memory on an ink cartridge, but that does not allow a user to write the manufacturing date of an ink to the memory while the ink cartridge is installed in the printer.

Because Saruta and Inose, alone or combined, do not describe the claimed invention, and in fact expressly point away from it, applicants respectfully submit that independent claims 29 and 30 are allowable. Further, because 1, 3, 4, 7, 9-11 depend from claim 29, and claims 25-27 depend from claim 30, applicants respectfully submit that claims 1, 3, 4, 7, 9-11 and 25-27 are also allowable.

Conclusion

For the reasons stated above, applicants submit that this application, including claims 1, 3, 4, 7, 9-11, 25-27 and 29-30, is allowable. Applicants therefore respectfully request that the Examiner allow this application.

Respectfully submitted,

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